

REMARKS

This responds to the Office Action mailed on April 21, 2006.

Claims 2-7, 16, 19-21, and 23-27 have been canceled. Claims 1, 15, 17, 22, and 28 have been amended. New claims 29-45 have been added. As a result, claims 1, 8-15, 17-18, 22, and 28-45 are now pending in this application.

Allowable Subject Matter

Claims 2-4, 6, 7, 16-18, 20, 21, 23-25, 27, and 28 were objected to as being dependent upon a rejected base claim, but they were indicated as being allowable if rewritten in independent form including all of the limitations of their respective base claims and any intervening claims.

Amendments to Claims 1, 15, 17, 22, and 28

Claims 1, 15, 17, 22, and 28 have been amended.

Independent claim 1 has been amended by reciting that the heat sink has first and second faces that each has a periphery defined by the fin tips, that each of the first and second faces comprises inter-fin openings, and that the fins are formed curved. The language “wherein the face is to face a heat-generating electrical component” has been deleted. Support for these amendments may be found, for example, at lines 6-7 on page 10, at lines 14-17 on page 23, and from FIG. 5.

Independent claim 15 has been amended to incorporate the subject matter of claim 16, which was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 17 has had its dependency switched from claim 16 to claim 15.

Independent claim 22 has been amended to incorporate the subject matter of claims 26 and 27, the latter of which was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 28 has had its dependency switched from claim 27 to claim 22.

No new matter has been introduced by way of these amendments to the claims.

New Claims 29-45

New claims 29-45 have been added to provide Applicants with additional protection to which Applicants are entitled. New claims 29-45 are supported by the original disclosure. No new matter has been introduced.

New independent claim 29 represents a combination of previously pending claims 1, 5, and 6. Claim 6 was indicated as allowable, so claim 29 should be allowable.

Dependent claim 30 is identical to original claim 4 (now canceled).

Dependent claim 31 is identical to original claim 8.

Dependent claim 32 is identical to original claim 9.

Dependent claim 33 is identical to original claim 10.

Dependent claim 34 is identical to original claim 11.

Dependent claim 35 is identical to original claim 13.

Dependent claim 36 is identical to original claim 14.

New independent claim 37 represents a combination of previously pending claims 1 and 2. Claim 2 was indicated as allowable, so claim 37 should be allowable.

Dependent claim 38 is identical to original claim 3 (now canceled).

Dependent claim 39 is identical to original claim 4 (now canceled).

Dependent claim 40 is identical to original claim 8.

Dependent claim 41 is identical to original claim 9.

Dependent claim 42 is identical to original claim 10.

Dependent claim 43 is identical to original claim 11.

Dependent claim 44 is identical to original claim 13.

Dependent claim 45 is identical to original claim 14.

**Rejection of Claims 1, 8, 11-15, and 22
under 35 U.S.C. §102(b)
as Anticipated by AAPA**

Claims 1, 8, 11-15, and 22 were rejected under 35 U.S.C. §102(b) as being anticipated by “Applicant’s Admitted Prior Art.” (AAPA).

The Examiner asserts that AAPA discloses various elements of claims 1, 8, 11-15, and 22.

The rule under 35 U.S.C. §102 is well settled that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2D 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP §2131.

AAPA fails to disclose all of the structural elements recited in claim 1, as amended. For example, AAPA fails to disclose a heat sink having first and second faces that each has a periphery defined by the fin tips, wherein each of the first and second faces comprises inter-fin openings, and wherein the fins are formed curved.

For the above reasons, claim 1 should be found to be allowable over AAPA, and Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §102(b) as anticipated by AAPA be withdrawn.

Independent claim 15 has been rewritten to incorporate the subject matter of claim 16, which was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, claim 15 and all claims dependent therefrom should be allowable.

Independent claim 22 has been rewritten to incorporate the subject matter of claims 26 and 27, the latter of which was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, claim 22 and all claims dependent therefrom should be allowable.

**Rejection of Claims 5, 19, and 26 under 35 U.S.C. §103(a)
as Unpatentable over AAPA in view of Mira**

Claims 5, 19, and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over “Applicant’s Admitted Prior Art” in view of Mira (U.S. 5,661,638).

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, the prior art reference (or references when combined) must teach or suggest every limitation of the claim. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA, 1974). MPEP §2143.

The asserted combination of AAPA in view of Mira fails to teach or suggest all of the claim limitations present in independent claim 1, as amended, so a *prima facie* case of obviousness has not been established.

For example, neither AAPA nor Mira individually discloses a heat sink having first and second faces that each has a periphery defined by the fin tips, and wherein each of the first and second faces comprises inter-fin openings, and wherein the fins are formed curved.

Furthermore, there is no teaching in either reference to combine AAPA with Mira. Mira is concerned with directing air to flow radially outward from central region 24 (FIG. 3), as described at col. 4, lines 2-4 and col. 5, lines 10-13. Further, Mira's heat sink has a closed bottom surface (see FIG. 4), whereas in Applicants' heat sink each of the first and second faces comprises inter-fin openings. These openings permit air to move downward between the fins, as described in Applicants' written description on page 14, lines 15-16.

For the above reasons, claim 1 should be found to be allowable over any combination of AAPA and Mira, and Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of Mira should be withdrawn.

Claim 5, which depends from claim 1 and incorporates all of the limitations therein, is also asserted to be allowable for the reasons presented above.

Claims 19 and 26 are dependent upon independent claims 15 and 22, respectively, which are asserted to be allowable for the reasons presented above. Thus, independent claims 15 and 22, and all claims dependent therefrom should be allowable.

**Rejection of Claims 8 and 9 under 35 U.S.C. §103(a)
as Unpatentable over AAPA**

Claims 8 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over "Applicant's Admitted Prior Art."

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, the prior art reference (or references when combined) must teach or suggest every limitation of the claim.

AAPA fails to teach or suggest all of the claim limitations present in independent claim 1, as amended, so a *prima facie* case of obviousness has not been established.

For example, AAPA fails to disclose a heat sink having first and second faces that each has a periphery defined by the fin tips, and wherein each of the first and second faces comprises inter-fin openings, and wherein the fins are formed curved.

For the above reasons, claim 1 should be found to be allowable over AAPA, and Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §103(a) as being unpatentable over AAPA should be withdrawn.

Claims 8 and 9, which depend from claim 1 and incorporate all of the limitations therein, are also asserted to be allowable for the reasons presented above.

Additional Elements and Limitations

Applicants consider additional elements and limitations of claims 1 and 8-14 to further distinguish over the cited references, and Applicants reserve the right to present arguments to this effect at a later date.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/656,968

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Title: Electronic Assemblies With High Capacity Heat Sinks and Methods of Manufacture

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Dkt: 884.467US2

Conclusion

Applicants respectfully submit that claims 1, 8-15, 17-18, 22, and 28-45 are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney Ann M. McCrackin (located in Minneapolis, Minnesota) at (612) 349-9592 or Applicants' below-signed attorney (located in Phoenix, Arizona) to facilitate prosecution of this application.

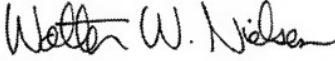
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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